

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: Unknown )  
)  
Filing Date: Unknown )  
)  
Priority Date: 02 JUNE 2000 )  
)  
Applicant: HOATH, William )  
)  
For: IMPROVEMENTS TO BROADCAST DATA )  
RECEIVER AND DATA TRANSMISSION )  
APPARATUS )

PRELIMINARY AMENDMENT

Director For Patents  
Box: New Application  
Washington, D.C. 20231

Dear Sir:

This is a preliminary amendment to the enclosed application entitled "Improvements to Broadcast Data Receiver and Data Transmission Apparatus" claiming priority to British Patent Application No. 0013324.9 filed 2 June 2000.

In the Specification:

Please amend the specification as follows:

Page 1, prior to the first paragraph, add the header and paragraph **--CROSS-REFERENCE TO RELATED APPLICATION** This application claims priority to British Patent Application No. 0013324.9 filed 02 June 2000.--; between lines 1 and 2, add the Header "BACKGROUND OF THE INVENTION."

Page 2, between lines 3 and 4, add the Header "SUMMARY OF THE INVENTION".

Page 3, between lines 12 and 13, add the Header "**DESCRIPTION OF THE DRAWINGS**";

Page 3, between lines 20 and 21, add the Header "**DESCRIPTION OF THE PREFERRED EMBODIMENTS**".

Page 6, add the new following paragraph after the last line --While the invention has been described with a certain degree of particularity, it is manifest that many changes may be made in the details of construction and the arrangement of components without departing from the spirit and scope of this disclosure. It is understood that the invention is not limited to the embodiments set forth herein for purposes of exemplification, but is to be limited only by the scope of the attached claim or claims, including the full range of equivalency to which each element thereof is entitled.--

In the Claims:

Amend claims 1 through 5 as follows:

1. (Amended) A system for the transmission of digital data, said system comprising: transmission of digital data from a broadcast location to a plurality of receiver locations, said system comprising: each receiver location including a broadcast data receiver for the processing of the data and generation of video, audio and/or auxiliary data, each receiver including a data over cable service interface system modem, or equivalent and wherein at the broadcast location or head end of the system there is provided a transcoder unit which transcodes data from an out of band data stream generated at the head end into a format such that, when received by the receiver, the same is received and processed via the data over cable service interface system modem.

2. (Amended) A system according to claim 1 wherein said broadcast data receivers do not include an out of band tuner.

3. (Amended) A system according to claim 1 wherein said transcoder unit transcodes data between the out of band data stream and ethernet to allow the transmission of the transcoded data and reception of same by a plurality of receivers in the transcoded format.

4. (Amended) A system for the transmission of digital data, said system comprising: transmission of digital data between a broadcast location and a plurality of receiver locations, said system comprising: each receiver location including a broadcast data receiver for the processing of the data and generation of video, audio and/or auxiliary data from said received data, each broadcast data receiver including a data over cable service interface system modem, or equivalent and capable of transmitting data from the receiver to the broadcast location and wherein the transmission of data from a receiver to the broadcast location there is provided a data reformatting unit which upon receiving data from any of the receivers reformats the same as required.

5. (Amended) A system according to claim 4 wherein the reformatting unit at the broadcast location allows for transcoding of data between the ethernet and the out of band data.

**REMARKS**

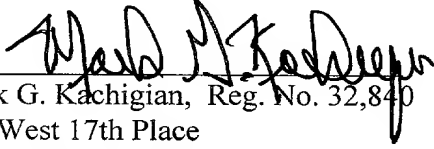
Attached are the marked up versions of the claims and new paragraphs as required in Section 1.121(4) (ii).

The application should now be in condition for examination, which is respectfully requested.

Respectfully Submitted

HEAD, JOHNSON & KACHIGIAN

Dated: \_\_\_\_\_

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1. (Amended) A system for the transmission of digital data, said system comprising: transmission of digital data from a broadcast location [(2)] to a plurality of receiver locations, each receiver location including a broadcast data receiver [(18)] for the processing of the data and generation of video, audio and/or auxiliary data, each receiver [(18)] including a [DOCSIS] data over cable service interface system modem, or equivalent and [characterised in that] wherein at the broadcast location or head end of the system there is provided a transcoder unit [(3)] which transcodes data from an out of band data stream generated at the head end into a format such that, when received by the receiver, the same is received and processed via the [DOCSIS] data over cable service interface system modem.

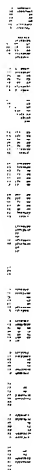
2. (Amended) A system according to claim 1 [characterised in that the] wherein said broadcast data receivers [(18)] do not include an [O]ut [O]f [B]and [(OOB)] tuner.

3. (Amended) A system according to claim 1 [characterised in that the] wherein said transcoder unit [(3)] transcodes data between the [OOB] out of band data stream and [E]thernet to allow the transmission of the transcoded data and reception of same by a plurality of receivers [(18)] in the transcoded format.

4. (Amended) A system for the transmission of digital data, said system comprising: transmission of digital data between a broadcast location [(2)] and a plurality of receiver locations, each receiver location including a broadcast data receiver [(18)] for the processing of the data and generation of video, audio and/or auxiliary data from said received data, each broadcast data receiver [(18)] including a [DOCSIS] data over cable service interface system

modem, or equivalent and capable of transmitting data from the receiver [(18)] to the broadcast location [(2)] and [characterised in that in] wherein the transmission of data from a receiver [(18)] to the broadcast location [(2)] there is provided a data reformatting unit which upon receiving data from any of the receivers reformats the same as required.

5. (Amended) A system according to claim 4 [characterised in that] wherein the reformatting unit at the broadcast location [(2)] allows for transcoding of data between the [E]thernet and the [O]ut of [B]band data.



New Header and paragraph to be inserted on Page 1, after title.

### **CROSS-REFERENCE TO RELATED APPLICATION**

This application claims priority to British Patent Application No. 0013324.9 filed June 2, 2000.

New paragraph Header to be inserted into Page 1, between lines 1 and 2:

### **BACKGROUND OF THE INVENTION**

New paragraph Header to be inserted into Page 2, between lines 3 and 4:

**SUMMARY OF THE INVENTION**

1. A method for determining a value of a function of a variable, the method comprising: receiving a value of the variable; and determining the value of the function of the variable based on the received value of the variable.



New header paragraph to be inserted into Page 3 between lines 12 and 13:

### **DESCRIPTION OF THE DRAWINGS**

New header paragraph to be inserted into Page 3 between lines 20 and 21:

### **DESCRIPTION OF THE PREFERRED EMBODIMENTS**

FIG. 1 is a perspective view of a first embodiment of a device for measuring the thickness of a material. The device includes a base 10, a probe 20, and a display 30. The probe 20 is positioned at the end of the base 10 and is used to touch the material. The display 30 is used to show the measured thickness. FIG. 2 is a perspective view of a second embodiment of the device. FIG. 3 is a perspective view of a third embodiment of the device. FIG. 4 is a perspective view of a fourth embodiment of the device. FIG. 5 is a perspective view of a fifth embodiment of the device. FIG. 6 is a perspective view of a sixth embodiment of the device. FIG. 7 is a perspective view of a seventh embodiment of the device. FIG. 8 is a perspective view of an eighth embodiment of the device. FIG. 9 is a perspective view of a ninth embodiment of the device. FIG. 10 is a perspective view of a tenth embodiment of the device. FIG. 11 is a perspective view of an eleventh embodiment of the device. FIG. 12 is a perspective view of a twelfth embodiment of the device. FIG. 13 is a perspective view of a thirteenth embodiment of the device. FIG. 14 is a perspective view of a fourteenth embodiment of the device. FIG. 15 is a perspective view of a fifteenth embodiment of the device. FIG. 16 is a perspective view of a sixteenth embodiment of the device. FIG. 17 is a perspective view of a seventeenth embodiment of the device. FIG. 18 is a perspective view of an eighteenth embodiment of the device. FIG. 19 is a perspective view of a nineteenth embodiment of the device. FIG. 20 is a perspective view of a twentieth embodiment of the device. FIG. 21 is a perspective view of a twenty-first embodiment of the device. FIG. 22 is a perspective view of a twenty-second embodiment of the device. FIG. 23 is a perspective view of a twenty-third embodiment of the device. FIG. 24 is a perspective view of a twenty-fourth embodiment of the device. FIG. 25 is a perspective view of a twenty-fifth embodiment of the device. FIG. 26 is a perspective view of a twenty-sixth embodiment of the device. FIG. 27 is a perspective view of a twenty-seventh embodiment of the device. FIG. 28 is a perspective view of a twenty-eighth embodiment of the device. FIG. 29 is a perspective view of a twenty-ninth embodiment of the device. FIG. 30 is a perspective view of a thirtieth embodiment of the device. FIG. 31 is a perspective view of a thirty-first embodiment of the device. FIG. 32 is a perspective view of a thirty-second embodiment of the device. FIG. 33 is a perspective view of a thirty-third embodiment of the device. FIG. 34 is a perspective view of a thirty-fourth embodiment of the device. FIG. 35 is a perspective view of a thirty-fifth embodiment of the device. FIG. 36 is a perspective view of a thirty-sixth embodiment of the device. FIG. 37 is a perspective view of a thirty-seventh embodiment of the device. FIG. 38 is a perspective view of a thirty-eighth embodiment of the device. FIG. 39 is a perspective view of a thirty-ninth embodiment of the device. FIG. 40 is a perspective view of a fortieth embodiment of the device. FIG. 41 is a perspective view of a forty-first embodiment of the device. FIG. 42 is a perspective view of a forty-second embodiment of the device. FIG. 43 is a perspective view of a forty-third embodiment of the device. FIG. 44 is a perspective view of a forty-fourth embodiment of the device. FIG. 45 is a perspective view of a forty-fifth embodiment of the device. FIG. 46 is a perspective view of a forty-sixth embodiment of the device. FIG. 47 is a perspective view of a forty-seventh embodiment of the device. FIG. 48 is a perspective view of a forty-eighth embodiment of the device. FIG. 49 is a perspective view of a forty-ninth embodiment of the device. FIG. 50 is a perspective view of a fiftieth embodiment of the device. FIG. 51 is a perspective view of a fifty-first embodiment of the device. FIG. 52 is a perspective view of a fifty-second embodiment of the device. FIG. 53 is a perspective view of a fifty-third embodiment of the device. FIG. 54 is a perspective view of a fifty-fourth embodiment of the device. FIG. 55 is a perspective view of a fifty-fifth embodiment of the device. FIG. 56 is a perspective view of a fifty-sixth embodiment of the device. FIG. 57 is a perspective view of a fifty-seventh embodiment of the device. FIG. 58 is a perspective view of a fifty-eighth embodiment of the device. FIG. 59 is a perspective view of a fifty-ninth embodiment of the device. FIG. 60 is a perspective view of a sixtieth embodiment of the device. FIG. 61 is a perspective view of a sixty-first embodiment of the device. FIG. 62 is a perspective view of a sixty-second embodiment of the device. FIG. 63 is a perspective view of a sixty-third embodiment of the device. FIG. 64 is a perspective view of a sixty-fourth embodiment of the device. FIG. 65 is a perspective view of a sixty-fifth embodiment of the device. FIG. 66 is a perspective view of a sixty-sixth embodiment of the device. FIG. 67 is a perspective view of a sixty-seventh embodiment of the device. FIG. 68 is a perspective view of a sixty-eighth embodiment of the device. FIG. 69 is a perspective view of a sixty-ninth embodiment of the device. FIG. 70 is a perspective view of a seventieth embodiment of the device. FIG. 71 is a perspective view of a seventy-first embodiment of the device. FIG. 72 is a perspective view of a seventy-second embodiment of the device. FIG. 73 is a perspective view of a seventy-third embodiment of the device. FIG. 74 is a perspective view of a seventy-fourth embodiment of the device. FIG. 75 is a perspective view of a seventy-fifth embodiment of the device. FIG. 76 is a perspective view of a seventy-sixth embodiment of the device. FIG. 77 is a perspective view of a seventy-seventh embodiment of the device. FIG. 78 is a perspective view of a seventy-eighth embodiment of the device. FIG. 79 is a perspective view of a seventy-ninth embodiment of the device. FIG. 80 is a perspective view of an eightieth embodiment of the device. FIG. 81 is a perspective view of an eighty-first embodiment of the device. FIG. 82 is a perspective view of an eighty-second embodiment of the device. FIG. 83 is a perspective view of an eighty-third embodiment of the device. FIG. 84 is a perspective view of an eighty-fourth embodiment of the device. FIG. 85 is a perspective view of an eighty-fifth embodiment of the device. FIG. 86 is a perspective view of an eighty-sixth embodiment of the device. FIG. 87 is a perspective view of an eighty-seventh embodiment of the device. FIG. 88 is a perspective view of an eighty-eighth embodiment of the device. FIG. 89 is a perspective view of an eighty-ninth embodiment of the device. FIG. 90 is a perspective view of a ninetieth embodiment of the device. FIG. 91 is a perspective view of a ninety-first embodiment of the device. FIG. 92 is a perspective view of a ninety-second embodiment of the device. FIG. 93 is a perspective view of a ninety-third embodiment of the device. FIG. 94 is a perspective view of a ninety-fourth embodiment of the device. FIG. 95 is a perspective view of a ninety-fifth embodiment of the device. FIG. 96 is a perspective view of a ninety-sixth embodiment of the device. FIG. 97 is a perspective view of a ninety-seventh embodiment of the device. FIG. 98 is a perspective view of a ninety-eighth embodiment of the device. FIG. 99 is a perspective view of a ninety-ninth embodiment of the device. FIG. 100 is a perspective view of a hundredth embodiment of the device.



## Abstract

## Improvements to Broadcast Data Receiver and Data Transmission Apparatus

The invention relates to the transmission of digital data which can be processed to generate video, audio and/or auxiliary data for television programmes and related information. As part of the data transmission a data stream of Out of Band (OOB) data is typically transmitted. However this requires additional components to be provided in the broadcast data receivers (18). The present invention allows for the transcoding and reformatting of data at the broadcast location (2) which allows the transmission of data between the broadcast location (2) and the broadcast data receivers (18) without the need for an OOB tuner and/or modem to be provided at the broadcast data receiver.